

having human telomerase catalytic activity when complexed with a telomerase RNA, wherein said polynucleotide hybridizes under stringent conditions to a polynucleotide having a sequence complementary to SEQ ID NO: 1.

24. (New) The expression vector of claim 23, further comprising a regulatory sequence selected from a promoter, an enhancer, and a 3' untranslated region.

25. (New) The expression vector of claim 24, wherein the promoter is selected from an alpha factor promoter, an alcohol oxidase promoter, a PGH promoter, a 35S promoter of CaMV, and a 19S promoter of CaMV.

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26. (New) The expression vector claim 23, wherein the vector is selected from a recombinant bacteriophage, a plasmid, a cosmid, a yeast expression vector, and a viral expression vector.

27. (New) The expression vector of claim 23, wherein the expression vector is selected from a mammalian virus expression vector, an SV40 virus expression vector, an EBV virus expression vector, an *Autographa californica* nuclear polyhedrosis virus expression vector, an adenovirus expression vector, a retrovirus expression vector, a herpes virus expression vector, and a vaccinia virus expression vector.

28. (New) The expression vector of claim 24, wherein the promoter is selected from a constitutive promoter, an inducible promoter, a lacZ promoter, a ptrp-lac hybrid promoter, a polyhedrin promoter, a heat shock promoter, a RUBISCO promoter, and a storage protein gene promoter.

29. (New) The expression vector of claim 23, further comprising a viral origin of replication.

30. (New) The expression vector of claim 23, further comprising a selectable marker gene.

31. (New) The expression vector of claim 30, wherein the selectable marker gene is selected from herpes simplex virus thymidine kinase, adenine phosphoribosyltransferase, *dhfr*, *npt*, *als*, *pat*, *trpB*, *hisD*, anthocyanin,  $\beta$  glucuronidase, and luciferase.

32. (New) A host cell comprising the expression vector of claim 23.

33. (New) A host cell comprising the expression vector of claim 24.

34. (New) A host cell comprising the expression vector of claim 25.

35. (New) A host cell comprising the expression vector of claim 26.

36. (New) A host cell comprising the expression vector of claim 27.

37. (New) A host cell comprising the expression vector of claim 28.

38. (New) A host cell comprising the expression vector of claim 29.

39. (New) A host cell comprising the expression vector of claim 30.

40. (New) A host cell comprising the expression vector of claim 31.

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